

METAL PROGRAMMABLE PHASE-LOCKED LOOP**ABSTRACT OF THE DISCLOSURE**

A phase-locked loop within an integrated circuit
5 assembly is provided. The phase-locked loop includes
a plurality of subcells of semiconductor devices
arranged in a base layer pattern on base layers of
the integrated circuit assembly. One or more metal
layers are formed over and interconnect the plurality
10 of semiconductor devices in a metallization pattern.
The phase-locked loop has an output frequency range
that is changeable with a change to the metallization
pattern without a corresponding change to the base
layer pattern.

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